

U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE ON SCIENCE

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March 5, 2003

The Honorable Jim Nussle  
Chairman  
Committee on the Budget  
U.S. House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

Pursuant to the provisions of clause 4(f) of House Rule X of the Rules of the House of Representatives for the 108<sup>th</sup> Congress and Section 301(d) of the Congressional Budget Act of 1974, as amended, I am transmitting the Views and Estimates of the Committee on Science for Fiscal Year 2004.

Sincerely,



SHERWOOD BOEHLERT  
Chairman

SLB/jrd  
Enclosure

Cc: The Honorable Ralph M. Hall  
The Honorable John M. Spratt, Jr.

**VIEWS AND ESTIMATES  
COMMITTEE ON SCIENCE  
FISCAL YEAR 2004**

**BACKGROUND**

Science and technology are the keystones of our economic prosperity and national security.

Economists attribute much of the nation's improvement in productivity in recent years to the fruits of research and development (R&D) – and that productivity improvement fueled the longest period of economic expansion in our nation's history.

Advancements in science and technology were also critical to the nation's ability to triumph in the Cold War. (Indeed, Cold War-era investments in science and technology, especially those made in the wake of the Soviet launch of Sputnik, laid much of the foundation for the broad, successful scientific and engineering enterprise the U.S. boasts today.) New ideas, understandings and technologies spawned by research and development are likely to be just as essential to winning the war against terrorism.

Moreover, science and technology have the potential to cure numerous domestic and global social ills – disease, poverty, hunger, cultural isolation and environmental degradation, to name just a few.

But advances in science and technology do not come cheap or without focused effort; nor are they solely the responsibility of the private sector. Throughout our history, and especially in the years since World War II, the federal government has played a fundamental role in underwriting research and development, especially (but not exclusively) basic research at the nation's universities. This investment, which has a long history of bipartisan support, has paid off with handsome benefits for all Americans.

While the percentage of national R&D sponsored by the federal government has declined in recent years, the federal role remains essential. Indeed, as competitive pressures have led many industrial enterprises to focus research on projects with shorter-term benefits, longer-term research depends more than ever on federal support.

None of these assertions is new or unfounded. They are, for example, discussed in the Committee's report *Unlocking Our Future: Toward a New National Science Policy*, prepared by Congressman Vernon Ehlers, at the request of the Speaker, in the 105<sup>th</sup> Congress.

**INTERAGENCY AND HOMELAND SECURITY ISSUES**

In the first session of the 108<sup>th</sup> Congress, the Science Committee will focus on homeland security issues, including cybersecurity, the establishment of the new Department and the impact of security concerns on the conduct of research; reauthorization of the nation's space and aeronautics programs and the investigation into the disintegration of the Space Shuttle *Columbia*; and oversight of the Department

of Energy and the development of the research title for a comprehensive Energy Bill. Many of the Committee's concerns and interests in these and other areas are captured in the agency-by-agency discussion in the next session. But three sets of central concerns that cut across agency lines need to be reviewed first.

### **Presidential Initiatives**

The Administration's budget highlights five "multi-agency R&D priorities" and provides a precise budget breakdown for three of them – work on networking and information technology, nanotechnology, and climate change. (*Analytical Perspectives*, p. 185) The Committee strongly endorses these initiatives, and agrees that they deserve priority in funding.

The Administration proposes a 6 percent increase from the Fiscal Year (FY) 03 request for the interagency program on Networking and Information Technology (NITRD). The Committee believes this is the minimum the program needs.

The Administration proposes increasing spending on nanotechnology by 10 percent. This promising, broadly applicable technology field merits the additional spending. The Committee plans to report out authorizing legislation for the nanotechnology initiative (H.R. 766) later this spring.

The Administration proposes spending about \$1.75 billion on climate change science, an amount equivalent to FY 03 enacted levels. The Committee believes this is an adequate investment in this important research. The Committee supports the proposal to dedicate \$182 million to the Climate Change Research Initiative (CCRI), compared to last year's \$40 million request. However, the Committee notes that much of the increase appears to be the result of the reclassification of several ongoing research programs.

The Committee commends the Administration for working to develop a strategic plan to guide all federal research activities regarding climate, including the CCRI. The Committee plans to work with the Administration to complete the plan this year and ensure that areas of climate research the plan identifies as priorities receive adequate funding.

The Committee also endorses the two other multi-agency R&D initiatives, which relate to combating terrorism, which is mentioned in the next section; and to education, some of which is discussed in the section on the National Science Foundation.

### **Homeland Security**

The Committee played an active role in drafting the legislation that established the Department of Homeland Security (DHS), particularly in creating the Science and Technology Directorate and in outlining the Department's role in cybersecurity.

The Committee is therefore pleased that R&D to combat terrorism is one of the top priorities in the Administration's FY 04 budget proposal. The FY04 budget request includes an estimated \$3.2 billion across all agencies for homeland security R&D, including over \$900 million for R&D within DHS –

almost one-third more than was requested in FY 03 for R&D by the agencies being transferred into the new Department.

Most of the R&D funding for DHS (\$803 million) will go to the Under Secretariat for Science and Technology, including \$350 million for the Homeland Security Advanced Research Projects Agency (HSARPA).

The Under Secretariat for Science and Technology is unusual among the divisions of DHS in that its mission and responsibilities require new capabilities that cannot be met by the programs and agencies being transferred into it. Perhaps more than any other part of the department, the challenge will be to build a division with greater capability than the sum of its individual pieces. Ultimate success will depend on careful planning and the investment of significant new resources.

While the Committee is generally supportive of the scale of the proposed budget for DHS, the Administration has not yet provided enough information to fully evaluate the proposed budget, despite repeated requests dating back several months. Important questions remain regarding the new Department's R&D agenda and how it will be carried out.

The Committee is concerned that the primary early focus of DHS R&D will be on development, with basic research comprising only 5 percent, or \$47 million, of the DHS R&D request. More information is needed on the R&D agenda both within and outside the Department to determine if this is adequate, especially given the proposed cuts in basic research at the Department of Defense.

The Committee is also concerned that the proposed budget fails to adequately address the nation's critical needs for cybersecurity R&D. The President's National Strategy to Secure Cyber Space tasks DHS with the responsibility to conduct research and development to reduce the vulnerability of our nation's computer networks. Nowhere, however, is this responsibility noted in the proposed budget.

### **Balance in the Federal Research Portfolio**

While the Committee believes that the Administration has chosen the appropriate priorities for the federal R&D budget, it is nonetheless concerned that the biomedical sciences, in general, and the National Institutes of Health (NIH), in particular, continue to dwarf the remainder of the R&D budget. While the budget documents acknowledge the need to increase support for the physical sciences, the proposed spending levels would not allow that to occur, especially when compared to the enacted levels for FY 03.

Similarly, while Defense Department development programs are critical to our national security, those programs alone cannot create a stable and secure American society or even ensure our protection from enemy attacks over the long-term. Yet while the Pentagon is slated to receive a 12 percent increase, basic and applied research in the Defense Department would decrease substantially from FY 03 requested levels.

### **RECOMMENDATIONS FOR AGENCIES**

#### **SUBCOMMITTEE ON ENERGY**

## **Department of Energy (DOE)**

The Committee has jurisdiction over DOE's non-military national laboratories, civilian energy research, development, and demonstration programs, and commercial application of energy technology activities.

The Committee strongly believes that the Administration's FY 04 budget request for DOE's Office of Science, which funds 40 percent of the Nation's physical science research, is inadequate. The budget proposes funding the Office at \$3.3 billion, essentially the same level provided by the Omnibus Appropriations for FY 03. This is significantly less than the \$3.8 billion the House conferees proposed providing to the Office for FY 04 in last year's comprehensive Energy Bill (H.R. 4). The proposal also falls short of the goal of the President's Council of Advisors on Science and Technology (PCAST), which recommended in its 2002 report that the FY 04 budget request begin bringing funding for the physical sciences into parity with that of the life sciences.

The Committee is particularly concerned about the future of the Office of Science's user facilities and academic research. In recent years, funding limitations have forced many user facilities to restrict the number of hours they are available to researchers, causing investments that have cost taxpayers billions to sit idle. In addition, many DOE facilities are deteriorating and staff are nearing retirement, producing a looming problem that the Committee believes must be addressed with increased resources.

The Committee supports the inclusion of \$12 million in the Office of Science request for the United States to rejoin international negotiations aimed at building ITER, a burning plasma physics experiment intended to lead eventually to the development of fusion as a commercially viable energy source. The Committee also supports the request for \$64 million, also within the Office of Science, for nanoscale science including funding for instrumentation and construction of several nanoscale research centers. The Committee is concerned, however, that without an increase in the Office of Science's total budget, existing programs will be cut to provide the necessary increases for these new initiatives.

The Committee strongly supports the President's initiative calling for America to lead the world in developing hydrogen-powered automobiles and the necessary fueling infrastructure to support them, although many details have not yet been determined. The Committee is pleased that the Administration has requested \$273 million for hydrogen technology programs, a 50 percent increase over FY 03 enacted levels.

The Committee is concerned, however, that the proposed increases in hydrogen programs would come at the expense of much of the rest of the R&D funded by DOE's Energy Efficiency and Renewable Energy (EERE) account. For example, biomass R&D, which is crucial to curbing the use of petroleum and other fossil fuels and improving our energy security, would be cut significantly under the budget proposal. The Committee believes that the EERE account should be increased so that increases for the hydrogen initiative do not come detract from other programs.

The Committee supports the Administration's request for an increase in support for nuclear energy science and technology programs. Developing technologies that can reduce the volume and long-term toxicity of high-level waste from spent nuclear fuel and reduce the threat of proliferation is necessary if the nation is to continue to rely on nuclear power. The Committee is concerned, however, about the

drastic cuts proposed for the nuclear energy research initiative (NERI), which funds innovative, peer-reviewed nuclear research at universities and has been the source of new ideas for improving the safety and performance of nuclear energy.

The Committee needs more time to review the request for the Fossil Energy Research and Development program. The proposed request appears to fall significantly below the enacted levels for FY 03. The Committee continues to support the Clean Coal program with the requirements that were included in the House-passed version of H.R. 4 in the last Congress.

Finally, the Committee supports the proposal to spend \$1.6 billion for climate change technology development and \$40 million for competitive grants to develop and deploy technologies that reduce or sequester greenhouse gases. The Committee awaits details on the program to ensure that federal dollars are being well spent to develop and commercialize advanced technologies that can help mitigate global climate change.

The Committee notes that the Department of Energy has also committed to completing a strategic plan for all the government's efforts to develop climate change technologies, similar to the plan for federal climate research, within the year. The Committee plans to work with the Administration to ensure that the plan is on time and that the areas of climate technology the plan identifies as priorities receive adequate funding.

## **SUBCOMMITTEE ON ENVIRONMENT, TECHNOLOGY AND STANDARDS**

### **Environmental Protection Agency (EPA)**

EPA's Office of Research and Development carries out 80 percent of EPA's R&D activities, and receives a majority of the funds available in the agency's science and technology (S&T) account. While the Administration's proposed budget for S&T at EPA of \$731 million is 9 percent above its FY 03 request, it is only 1.5 percent above FY 03 enacted levels. The Committee believes that an increase in funding for EPA's S&T activities is warranted, especially in light of the across-the-board green progress ratings EPA has earned on all five of the President's management initiatives.

The Committee is pleased that the Administration is seeking funding for the Science to Achieve Results (STAR) Fellowship program, which it had proposed to eliminate in the FY 03 budget request. However, the Committee believes the program should be funded at \$10 million, the level enacted for FY 03.

The Committee supports EPA's request for increased funding for improving Computational Toxicology, (which helps reveal the sequence of events by which chemicals can cause adverse effects in humans) and the Integrated Risk Information System (which provides critical human health information that enables health-based decision-making). The Committee also supports EPA's proposed increase in funding to study risks in sensitive populations such as the aged. Finally, the Committee again supports EPA's proposed new investments in homeland security for drinking water systems, for implementation of training and technical assistance as required by the Bioterrorism Response Act, and for rapid risk assessment.

## **National Oceanic and Atmospheric Administration (NOAA)**

The proposed budget would increase NOAA's funding by \$172 million, or about 5.5 percent, above the FY 03 enacted level. The Committee supports this overall level of funding for NOAA.

The Committee is pleased that the request for NOAA includes funding for the National Sea Grant College Program. The Administration had proposed in its FY 03 request to transfer the program from NOAA to the National Science Foundation. The Committee led an effort to reform the program by making more of its funding merit-reviewed and competitive. The Committee's reforms were included in the reauthorization that passed Congress and was signed by the President last fall.

The Committee supports NOAA's request for an increase of \$17 million for climate change research, observations and services for a total of \$296 million. Both the scientific community and the Administration have identified these three areas as high priorities. Included in this amount is \$41.6 million specifically for NOAA's activities under the President's Climate Change Research Initiative (CCRI), which is intended to reduce scientific uncertainty and provide policy makers with useful information regarding climate change.

The Committee strongly supports the \$5.5 million request for new funding to upgrade the current NOAA Weather Radio system. The increase will be used to fully automate NOAA Weather Radio and broaden its capabilities to become an All Hazards Network, allowing local emergency management officials to send information and warnings to the public for any hazardous situation, not just weather emergencies. The expansion will greatly improve our nation's ability to respond to any emergency, including terrorist attacks.

The Committee is pleased the Administration has requested an increase of \$40 million NOAA's new satellite program (NPOESS) for a total of \$277 million. This project, which is jointly funded by the Air Force, is vital to our future ability to forecast extreme weather. However, the Committee is concerned that this increase may not be enough as the total request for NPOESS (NOAA and Air Force) is \$50 million less than what is called for in NOAA's NPOESS planning documents. The Committee is also concerned about NOAA's current and future capability to utilize, manage, and store all the satellite and weather data that are critical for forecasting and research. The Committee will continue to work with the General Accounting Office to ensure NPOESS is able to fulfill its mission and that NOAA makes progress on solving its satellite data management problems.

## **Department of Commerce --Technology Administration**

The bulk of the Technology Administration's funding goes to the National Institute of Standards and Technology (NIST), the nation's oldest federal laboratory, which has consistently provided high-quality research in a wide variety of fields including homeland security, nanotechnology, health care, building science, and computer security. The Administration proposes to spend \$387.6 million for the core NIST laboratory functions (the Scientific and Technical Research and Services account) in FY04 – an increase of \$28.2 million, or 8 percent, over FY 03. The Committee is pleased with this request, and in particular supports the new initiatives in nanotechnology and homeland security for which the Administration has requested funding. However, the Committee believes that more funding should be

provided to NIST to implement the significant new responsibilities Congress has recently given it. Specifically, the Committee believes NIST should be provided an additional \$47 million to implement the Cyber Security Research and Development Act and \$10 million to implement the Help America Vote Act, both of which were enacted during the last Congress.

The Committee is also pleased with the Administration's proposed construction and maintenance budget for NIST of \$69 million. The budget request provides funding to undertake much needed improvements at NIST's laboratory in Boulder, Colorado. Above all, however, the Committee wants to ensure that the new Advanced Measurement Laboratory in Gaithersburg, Maryland is completed as soon as possible. NIST's FY03 appropriation did not provide enough funding to keep this facility on schedule for completion by the end of 2003. If no additional funding can possibly be provided for its completion this year, the Committee recommends additional funding for FY 04.

The Committee takes issue with the proposal to virtually eliminate funding for the Manufacturing Extension Partnership (MEP), which helps smaller manufacturers modernize to remain competitive. In FY 00 alone (the most recent year for which data is available), the program contributed \$2.28 billion in new or retained sales, \$480 million in cost savings, and \$873 million in new capital investments. The proposed budget would end federal support for almost all state MEP centers. This change would force most centers to shut their doors just as they could be contributing to economic recovery.

The Committee continues to support the Advanced Technology Program (ATP) and is disappointed that it is phased out in the Administration's budget. The Committee remains willing to work with the Administration on the ATP reform package it sent to Congress late last year.

#### **National Technical Information Service (NTIS)**

The Committee looks forward to working with the Administration to keep NTIS functioning as a self-sustaining entity.

### **SUBCOMMITTEE ON RESEARCH**

#### **National Science Foundation (NSF)**

The National Science Foundation (NSF) is the primary source of non-medical basic research conducted at colleges and universities. NSF funds basic research across nearly all disciplines of science and engineering, making NSF-supported research integral to progress in priority areas such as health care and national security, among others. In addition, NSF sponsors programs to improve K-12 and undergraduate education, and its fellowships and research assistantships support many graduate and post-doctoral students. The Foundation continues to receive high marks under the President's Management Reform Agenda. This year the Foundation received the only two "green lights" from the Office of Management and Budget (OMB)—one for financial management and the other for e-government.

The FY04 budget request for NSF is \$5.481 billion, an increase of \$452.9 million—or 9 percent—over the FY03 request, but only 3 percent more than the FY03 appropriated level. As a result, when compared to the actual FY03 appropriated amounts, the high priority for NSF funding expressed in the



President's budget (which was submitted before the FY03 appropriation was completed) fades to nearly flat funding when adjusted for inflation. Moreover, the FY04 budget request falls far short of the \$6.39 billion authorized by the 107<sup>th</sup> Congress for NSF education and research activities in FY04.

The Committee believes that NSF should receive \$6.390 billion in FY04, the amount authorized by the National Science Foundation Authorization Act of 2002 (P.L. 107-368). This request would increase funding for NSF's core science programs, such as information technology and nanoscale science and engineering research, and it would enable NSF to begin fully funding K-12 education programs and the large facility projects that have already been approved by the National Science Board.

#### *Education and Human Resources*

The Committee will continue to support education programs that improve student achievement and involvement in science, math, engineering and technology, and it will ensure that math and science education reforms, undertaken to fulfill the vision of the President's *No Child Left Behind* initiative, are grounded in sound science.

The Committee is pleased that the budget requests \$200 million to complete the third year of funding for the Mathematics and Science Education Partnership Program. While the requested level is lower than the amount authorized last year by the National Science Foundation Act of 2002 (P.L. 107-368), it does restore recent funding cuts and it increases the overall level to accommodate the high number of quality applications.

The Committee appreciates the fact that the budget provides funding for the Noyce Scholarship Program and the Tech Talent Program (referred to as the Science, Technology, Engineering and Mathematics Talent Expansion Program, or STEP), but notes that the FY03 appropriated level now exceeds the FY04 request by \$3 million and \$15 million respectively. The Committee believes that the Noyce Scholarship Program should receive \$20 million and the Tech Talent Program (or STEP) should receive \$30 million, the amounts authorized under P.L. 107-368.

Finally, the Committee is pleased that the budget request for NSF's education programs increases the stipend level for graduate students in research or teaching fellowships from \$25,000 to \$30,000.

#### **Federal Emergency Management Agency (FEMA) - United States Fire Administration (USFA)**

The U.S. Fire Administration (USFA) was created in 1974 to aid localities in reducing the loss of life and property from fires and related emergencies. In 1979, USFA became part of the Federal Emergency Management Agency (FEMA), which, in turn, will be transferred on March 1 into the new Department of Homeland Security (DHS). USFA's Fire Prevention and Control activities, authorized at a level of \$50.0 million for FY03, are due to be reauthorized this year. The FY04 budget request for these USFA activities has not yet been provided to Congress.

The Committee is concerned about the fate of non-homeland security activities transferred into the Department of Homeland Security, and is troubled by the lack of information regarding USFA fire prevention and control activities included in the budget justifications. The committee will carefully

monitor the administration of these programs to ensure that they continue to be operated in an efficient and effective manner.

USFA has also administered the (separately authorized) Assistance to Firefighters Grant Program to provide direct assistance to local fire departments for training, purchase of equipment, and other purposes. The program is authorized at a level of \$900 million for FY04. The President has requested \$500 million, or \$245 million less than the amount appropriated for FY03, for this program as part of the Administration's \$3.5 billion counter-terrorism initiative within the Department of Homeland Security Border and Transportation Security Directorate's Office of National Preparedness.

The Committee is pleased that the budget requests a specific amount for the Assistance to Firefighters grant program (as opposed to zeroing out the program in favor of other first responder programs, as in the FY03 request) but supports the authorized amount for FY04 and is opposed to the transfer of the program out of the DHS Emergency Preparedness and Response Directorate where FEMA-USFA would administer it. The Committee believes that USFA, with its long history of working with America's fire services and demonstrated record of successfully implementing the fire grant program, is clearly the appropriate agency for administration of the program. The Committee also believes the focus of the program should remain on supporting basic firefighting needs, separate and distinct from other grant programs providing funds for terrorism incident response.

#### **National Earthquake Hazards Reduction Program (NEHRP)**

NEHRP is an interagency program led by FEMA that includes the National Science Foundation (NSF), the National Institute of Standards and Technology (NIST), and the U.S. Geological Survey (USGS). The program aims to reduce the loss of life and property from earthquakes by improving emergency response, increasing our understanding of earthquake risks, and improving earthquake engineering.

Most NEHRP activities, authorized at a level of \$122.6 million for FY03, are due to be to reauthorized this year. Additional multi-year authorizations exist to operate the Advanced National Seismic Research and Monitoring System (ANSS, \$35.0 million for FY04) and the George E. Brown Network for Earthquake Engineering Simulation (NEES, \$17 million for FY04). The complete FY04 budget request for NEHRP has not yet been provided to Congress because of the delayed release of DHS-FEMA budget justifications. However, supporting agency levels have been provided: NSF, \$45.0 million; USGS, \$46.1 million; NIST, \$2.5 million. The Committee is concerned about the fate of the NEHRP program as FEMA is transferred into the Department of Homeland Security, and troubled by the apparent lack of coordination between NEHRP agencies in preparing the budget request. The Committee is also concerned that the request for the ANSS is only \$2.0 million, less than five percent of the authorized level.

### **SUBCOMMITTEE ON SPACE AND AERONAUTICS**

#### **National Aeronautics and Space Administration (NASA)**

The Administration has proposed \$15.469 billion for NASA in FY04, an increase of less than 1 percent above NASA's FY03 appropriation of \$15.335 billion. Unfortunately, as a result of the tragic loss of the Space Shuttle, it is impossible at this time to credibly assess the proposed funding levels contained in significant portions of NASA's FY04 budget request.

On February 1, 2003, the Space Shuttle *Columbia* was destroyed during re-entry and the seven astronauts on-board were killed. Following the accident, NASA grounded the Shuttle fleet indefinitely pending an investigation by a team of outside experts. Clearly, the accident and subsequent grounding of the Shuttle will have a significant effect on NASA's proposed FY04 budget request for the Shuttle program and the programs that rely on the Shuttle, specifically the International Space Station (ISS), and the ISS research program which is contained in the Office of Biological and Physical Research. In total, these programs account for approximately \$6.6 billion of NASA's \$15.5 billion budget. It is too early in the investigation to accurately predict what NASA's FY04 budget requirements will be for these programs.

The Administration is not expected to call for the construction of a new Shuttle Orbiter as was done to replace the Challenger in 1986 both because a fleet of three Orbiters is probably sufficient to complete the missions planned and because Shuttle manufacturing has been shut down for so long that it would be extremely difficult to restart it. However, as a result of the grounding of the Shuttle, NASA is studying alternatives to accelerate the development of an Orbital Space Plane (OSP) as part of the Space Launch Initiative (SLI). NASA's FY04 request for SLI is \$1 billion and an acceleration of the program would likely increase the funding required for the program, but it is premature to predict whether NASA will propose an acceleration of the OSP and how that might affect the budget. The Committee plans to reassess all NASA human space flight programs as part of its investigation into the Columbia accident.

NASA hoped to achieve U.S. core complete assembly of the ISS by spring 2004 and have 12 research racks in operation. However, these plans are being re-assessed as well. Therefore, the Committee cannot adequately address whether the Administration's \$1.71 billion FY04 budget request for ISS assembly and operations is justified. While the ISS has been an item of concern for the Committee, NASA has made significant progress this past year in establishing more credible cost estimates and management processes for the program.

The Administration requested \$972.7 million in FY04 for NASA's Biological and Physical Research program, which is a 6.5 percent increase over the FY03 request, as calculated using full cost. This budget reflects NASA's commitment to the Research Maximization and Prioritization (ReMAP) Task Force recommendations to increase the priority and productivity of science on the Space Station. NASA management should be commended for providing more stability to the Space Station research program. However, the loss of the *Columbia* and grounding of the Space Shuttle fleet will impact NASA's ability to conduct this research.

Three major NASA programs, Space Science, Earth Science, and Aeronautics are not directly affected by the grounding of the Space Shuttle fleet. The Administration's FY04 budget request for NASA's Space Science enterprise is \$4.01 billion. The Committee strongly supports NASA's Space Science program and the Administration's request, including Project Prometheus for space nuclear power and propulsion systems, optical communications, and the Beyond Einstein initiative.

The Committee supports the Administration's request of \$1.55 billion for NASA's Earth Science Enterprise and applauds NASA's work with the interagency climate change science program. However, the Committee is concerned that the Administration is requesting only \$75 million in FY04 for NASA's Earth Science Application programs, despite its proven track record of high payoff endeavors, including improved weather forecasting, disaster management, terrain mapping, and aviation safety. The Committee is also concerned that the Administration is not adequately transitioning NASA's technology efforts, such as space radar and weather monitoring sensors, into operational capabilities.

The Administration's FY04 budget request for NASA's Aeronautics Technology program is \$959 million, a 1 percent increase over last year's request. The Committee is concerned that the Administration has significantly under-funded research and development in aeronautics. Once a core program within NASA, the Administration plans to cut an additional 5 percent from this program over the next five years, exacerbating a ten-year pattern of declining budgets at a time of growing need. These needs were highlighted in the *Final Report of the Commission on the Future of the United States Aerospace Industry*, a Congressionally-created commission chaired by former Science Committee Chairman Bob Walker. This report concluded: "As we approach the 100<sup>th</sup> anniversary of powered flight, the Commission urges the President and Congress to recognize a pressing national need, and powerful opportunity, and act now to create a 21<sup>st</sup> century air transportation system."

#### **Federal Aviation Administration (FAA)**

The Committee believes that the FY04 budget request for FAA's research and development is not adequate. The budget request appears to be \$282 million, but is difficult to calculate because of the way it has been distributed across several accounts. The level of R&D investment falls far short of the funding required to maintain and to improve our air transportation system. The Committee looks forward to working with the FAA to ensure that R&D funding is commensurate to the challenges facing our air transportation system.

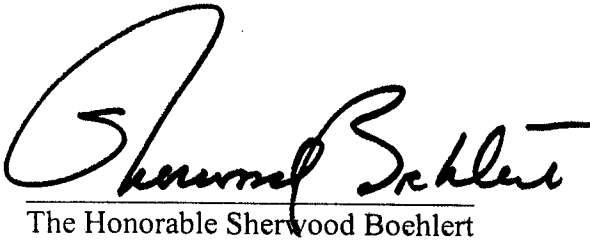
The Committee believes that the FY04 budget request of \$12.6 million for the FAA's Office of Commercial Space Transportation (OCST) is more than is necessary to meet the projected demand for issuing commercial launch licenses and promoting the space transportation industry. The Committee urges the Office and the U.S. Air Force to develop streamlined safety regulations for U.S. launch operations that do not hinder the competitiveness of commercial launch providers.

#### **Department of Commerce—Office of Space Commercialization**

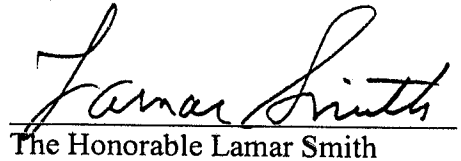
The Committee urges continued funding for this office at a level of at least \$760,000 for FY04. In the past, the Office has played a useful role in promoting the commercial space industry and removing unnecessary impediments to the development of a robust and prosperous space industry. The Office needs to take a stronger role in legal and policy discussions within the government and be more aggressive in assisting U.S. commercial space providers in their efforts to conduct business with the government.

Committee on Science - FY 2004 Views and Estimates

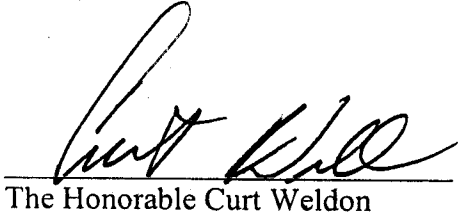
Member Signatures



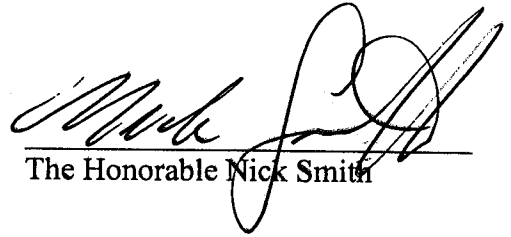
The Honorable Sherwood Boehlert  
Chairman



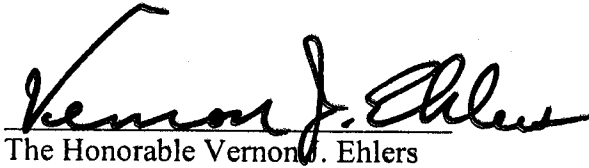
The Honorable Lamar Smith



The Honorable Curt Weldon



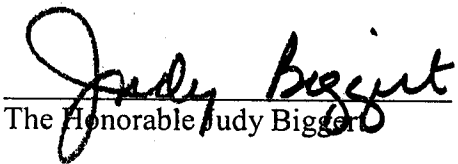
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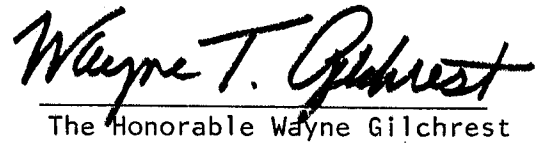
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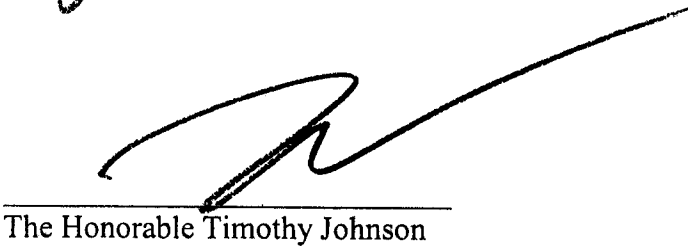
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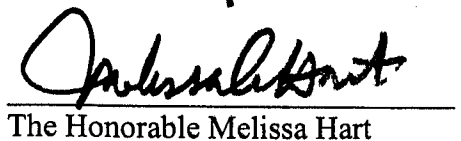
The Honorable Judy Biggert



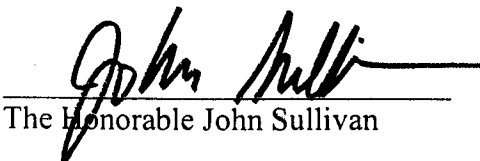
The Honorable Wayne Gilchrest



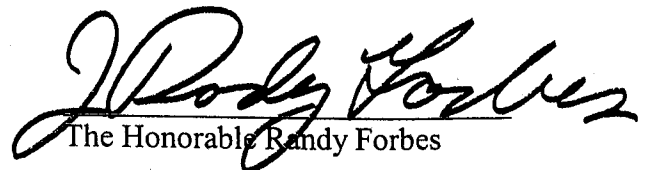
The Honorable Timothy Johnson



The Honorable Melissa Hart



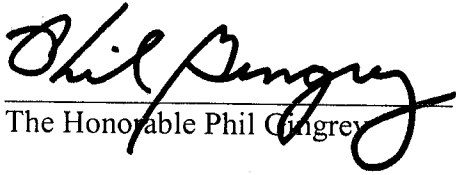
The Honorable John Sullivan



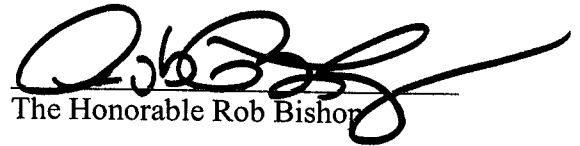
The Honorable Randy Forbes

# Committee on Science - FY 2004 Views and Estimates

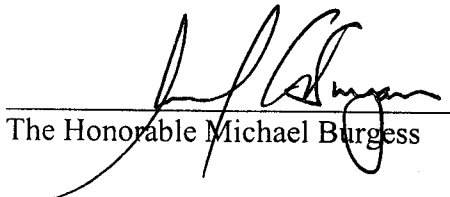
## Member Signatures



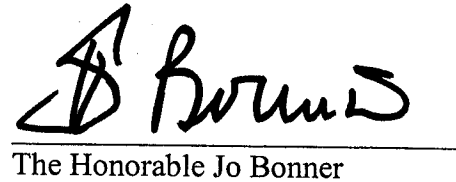
The Honorable Phil Gingrey



The Honorable Rob Bishop



The Honorable Michael Burgess



The Honorable Jo Bonner



The Honorable Tim Feeney



The Honorable Ken Calvert



The Honorable Frank D. Lucas



The Honorable Roscoe G. Bartlett

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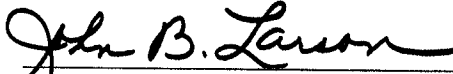
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Committee on Science - FY 2004 Views and Estimates

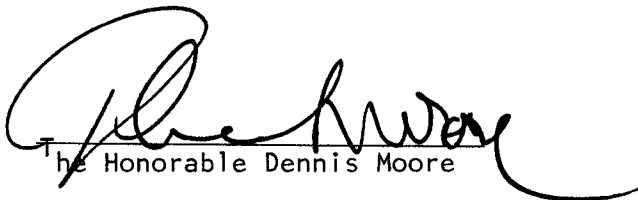
Member Signatures

  
The Honorable John Larson

  
The Honorable Anthony Weiner

  
The Honorable Michael M. Honda

  
The Honorable Mark Udall

  
The Honorable Dennis Moore

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